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S21:	(4)	s20 and (frontend or frint-end or (front adj2 end) or backend or back-end or (back adj2.
S22:	(2)	("6119933").PN.

D	I	Document ID	Issue Date	Pages	Title	Current US	Current XRef	Retrieval C	Inventor	S	C
		US 6119933 A	20000919	31	Method and apparatus for customer loyalty and	235/380	235/381; 902/27		Wong; Earl Chang et al.	P	D

1 and (pay or payment or fee or collection or collect or paying or paid)

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WORD SEARCH
12/27/2004

US006119933A

United States Patent [19]

Wong et al.

[11] **Patent Number:** 6,119,933

[45] **Date of Patent:** Sep. 19, 2000

[54] **METHOD AND APPARATUS FOR CUSTOMER LOYALTY AND MARKETING ANALYSIS**

[76] Inventors: **Earl Chang Wong**, 10755 Scripps Poway Pkwy., Ste. F-410, San Diego, Calif. 62131; **Gordon H. Miles**, 1526 Rubenstein Ave., Cardiff, Calif. 92007

[21] Appl. No.: **09/116,654**

[22] Filed: **Jul. 16, 1998**

Related U.S. Application Data

[60] Provisional application No. 60/052,836, Jul. 17, 1997.

[51] Int. Cl.⁷ G06K 5/00

[52] U.S. Cl. 235/380; 235/381; 902/27

[58] Field of Search 235/380, 375, 235/379, 387, 449, 493; 902/3, 4, 27

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Primary Examiner—Michael G Lee
Attorney, Agent, or Firm—Townsend and Townsend and Crew LLP

[57] **ABSTRACT**

A customer frequency, analysis and reward system has multiple alternative components and allows for input of customer identification through use of a smart card, biometric input device, or a preexisitng identification, such as a credit card, government-issued id, or checking account. A customer interacts with the system initially at a data collection point-of-sale (POS) device at a retail outlet. Data is periodically collected from the retail site to a data warehouse, where various types of analysis may be performed. A customer can interact with the system using an internet interface, thus reducing costs of ownership.

6 Claims, 23 Drawing Sheets
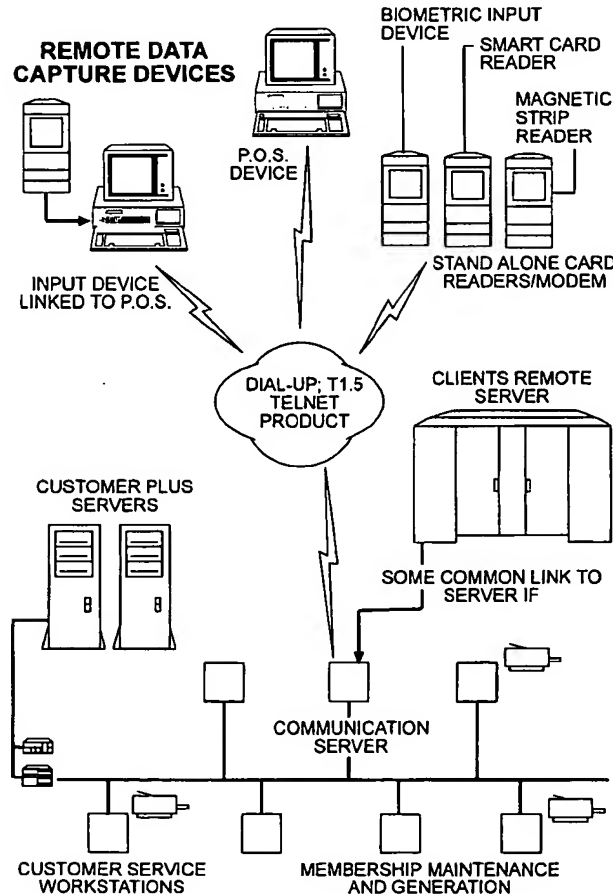
US-PAT-NO: 6119933

DOCUMENT-IDENTIFIER: US 6119933 A

TITLE: Method and apparatus for customer
loyalty and marketing
                         analysis

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 TITLE - TI (1):
     Method and apparatus for customer loyalty and marketing
analysis

 Brief Summary Text - BSTX (3):
    According to one embodiment, a customer interacts with
the system initially
at a data collection point-of-sale POS) device at a retail
outlet or other
place where a customer interacts with the seller (or user
of the system). This
POS device may include a magnetic card reader for reading a
magnetic stripe on
a credit card or other customer loyalty card, or may
include a keyboard for
entering customer ID information, or may include a check
scanner for reading
the number of a customer checking account, or may include a
biometric input
device such as a fingerprint reading technology, or any
other device for
identifying and validating the identity of a particular
customer or
group/family of customers.

 Brief Summary Text - BSTX (4):
    Once the customer data is read by the POS device, it is
compared against a
local database which is generally at the retail
establishment or quickly
accessible to the retail establishment. A match is

attempted in the local
database from whatever data is collected from the customer.
According to one
embodiment of the invention, the database will have
multiple input points so
that a customer does not need to provide a single ID for a
loyalty system but
the customer's identity may be determined from any of the
possible inputs
including different credit cards, a number of different
checking accounts, a
driver's license, or any other ID methodology.

Brief Summary Text - BSTX (5):
   If no match is found in a local database, for example,
if it's the first
time that a customer is visiting a particular retail
outlet, the loyalty system
may then check in a second level local database, or may use
the Internet or
wide area networking technology to attempt a customer ID
match in a central
database. If no match is found in the local database or
the central database,
a customer may be invited to provide identifying data at
the point of sale so
as to join the customer loyalty program. Such invitation
may take a form of a
mailing card, a computer keyboard input, or an interview
conducted by the
point-of-sale retail clerk to determine the customer
loyalty input data.

Brief Summary Text - BSTX (7):
   According to a further embodiment of the invention, the
system keeps track
of customer frequency award points in order to encourage
customers to
participate in the system. A mechanism is provided for
customers to directly
interact with this customer loyalty system in order to
determine their
eligibility for awards, or other information, based on

their patronage of
particular retailers that participate in the customer
loyalty system.
According to one embodiment, this interface is provided via
the World Wide Web
over the Internet wherein customers are allowed to interact
directly with
aspects of the data warehouse, to view their customer
information, and to make
corrections to such identifying information as telephone
numbers and addresses.

Detailed Description Text - DETX (49):
   Open Customer Base: A customer base is defined in
Customer Plus as the
member group. Member groups are tied to a particular
customer
frequency/loyalty program. Only one customer base can be
open at a time. The
customer base name is displayed on the title bar next to
"Customer Plus".

Detailed Description Text - DETX (61):
   The standard set of reports and queries that may be
included with the
invention include: Output; Generic Ledger; Spreadsheet Net
Sales; Ticket
average; Food counts; Net dollars; Labor costs; Executive
Summary; Sales and
Ledger Summary; Per Person Average Spending; Area Labor
Analysis Project hours;
Actual hours; Daily Labor by Employee (Time and Attendance
Pay rate; Time
in/out; Hours; Labor costs; Key Indicators; Product Sales
Mix Quantity of food
item; % of entrees; Food Bar Costs; Ticket Average Quantity
sold; Dollars sold;
Labor Productivity Meal counts; Sales; Minutes per meal;
Company Sales Rollup
Net sales; Labor costs; Custom List; Birthday List; Sales
Activity; Rolling 12
Month Trend; Promotion Analysis; Join Date List; New
Enrollments.

Claims Text - CLTX (17):
    a customer loyalty reward system, with access to data in said data
warehouse, for maintaining information regarding customer frequency in order to
provide an awards program as an incentive for a customer participating in said
customer analysis system.